

3626 - CID510090_Loudoun County_CFPF-1_Cabin Branch Watershed Management Plan

Application Details

Funding Opportunity:

3294-Virginia Community Flood Preparedness Fund - Study Grants - CY25 Round 6

Funding Opportunity Due Date: Dec 1, 2025 11:59 PM

Program Area: Virginia Community Flood Preparedness Fund

Status: Under Review

Stage: Final Application

Initial Submit Date: Dec 1, 2025 2:41 PM

Initially Submitted By: Doug Fritz

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name*: Mr. Doug Fritz
Salutation First Name Last Name

Title:

Email*: dfritz@gky.com

Address*: 2307 E. Broad Street

Richmond Virginia 23223
City State/Province Postal Code/Zip

Phone*: (804) 690-5177 Ext.

Phone

###-###-####

Fax: ###-###-####

Comments:

Organization Information

Status*: Approved
Name*: Loudoun County
Organization Type*: County Government
Tax ID*: 540948306
Unique Entity Identifier (UEI)*: T6BKTJUZVV29
Organization Website:
Address*: 1 Harrison Street SE

Leesburg Virginia 20175-
City State/Province Postal Code/Zip

Phone*: 571-258-3996 Ext.
###-###-####
Fax: ###-###-####
Benefactor:
Vendor ID:
Comments:

VCFPF Applicant Information

Project Description

Name of Local Government*: Loudoun County
Your locality's CID number can be found at the following link: [Community Status Book Report](#)

NFIP/DCR Community 510090

Identification Number (CID)*:

If a state or federally recognized Indian tribe,

Name of Tribe:

Authorized Individual*: Tim Hemstreet
First Name Last Name

Mailing Address*: P.O. Box 7000
Address Line 1
Address Line 2

Leesburg Virginia 20177
City State Zip Code

Telephone Number*: 703-777-0200

Cell Phone Number*: 571-233-6559

Email*: coadmin@loudoun.gov

Is the contact person different than the authorized individual?

Contact Person*: Yes

Contact: Chris Stone
First Name Last Name

P.O. Box 7100
Address Line 1
Address Line 2

Leesburg Virginia 20175
City State Zip Code

Telephone Number: 571-258-3542

Cell Phone Number: 571-233-6559

Email Address: chris.stone@loudoun.gov

Enter a description of the project for which you are applying to this funding opportunity

Project Description*:

This project will aid in the development of a PCSWMM 1D-2D combined model for the 2,266 Cabin Branch watershed in eastern Loudoun County. Development in this watershed, which is the part of the County nearest to Washington D.C., represents some of the first development associated with the County's rapid growth after World War II. It also represents some of the least affluent neighborhoods, with some U.S. Census tracts averaging only slightly over half of the County.

Low-income geographic area means any locality, or community within a locality, that has a median household income that is not greater than 80 percent of the local median household income, or any area in the Commonwealth designated as a qualified opportunity zone by the U.S. Secretary of the Treasury via his delegation of authority to the Internal Revenue Service. A project of any size within a low-income geographic area will be considered.

Is the proposal in this application intended to benefit a low-income geographic area as defined above?

Benefit a low-income geographic area*: Yes

Information regarding your census block(s) can be found at census.gov

Census Block(s) Where Project

will Occur*:

See Other Relevant Documentation - CID510090_Loudoun County_CFPF-1_CabinBranchCensusBlocks.pdf

Is Project Located in an NFIP Yes

Participating Community?*:

Is Project Located in a Special Flood Hazard Area?*: Yes

Flood Zone(s) (if applicable): AE

Flood Insurance Rate Map Number(s) (if applicable): 51107C0265E, 51107C0268E, 51107C0269E, 51107C0385E

Eligibility - Round 4

Eligibility

Is the applicant a local government (including counties, cities, towns, municipal corporations, authorities, districts, commissions, or political subdivisions created by the General Assembly or pursuant to the Constitution or laws of the Commonwealth, or any combination of these)?

Local Government*:

Yes

Yes - Eligible for consideration

No - Not eligible for consideration

If the applicant is not a town, city, or county, are letters of support from all affected local governments included in this application?

Letters of Support*:

N/A

Yes - Eligible for consideration

No - Not eligible for consideration

Has this or any portion of this project been included in any application or program previously funded by the Department?

Previously Funded*:

No

Yes - Not eligible for consideration

No - Eligible for consideration

Has the applicant provided evidence of an ability to provide the required matching funds?

Evidence of Match Funds*:

Yes

Yes - Eligible for consideration

No - Not eligible for consideration

N/A - Match not required

Scope of Work - Studies - Round 4

Scope of Work

Upload your Scope of Work

Please refer to Part IV, Section B. of the grant manual for guidance on how to create your scope of work

Scope of Work*:

CID510090_LoudounCounty_CFPF-1_CabinBranch_Scope of WorkFinal.pdf

Comments:

Loudoun County Cabin Branch Scope of Work

Budget Narrative

Budget Narrative Attachment*:

CID510090_Loudoun County_CFPF-1_Cabin Branch_Narrative Budget Template.pdf

Comments:

Loudoun County Cabin Branch Budget Narrative totaling \$956,292.

Scoring Criteria for Studies - Round 4

Scoring

Revising floodplain ordinances to maintain compliance with the NFIP or to incorporate higher standards that may reduce the risk of flood damage. This must include establishing processes for implementing the ordinance, including

but not limited to, permitting, record retention, violations, and variances. This may include revising a floodplain ordinance when the community is getting new Flood Insurance Rate Maps (FIRMs), updating a floodplain ordinance to include floodplain setbacks or freeboard, or correcting issues identified in a Corrective Action Plan.

**Revising Floodplain
Ordinances*:** No
Select

Creating tools or applications to identify, aggregate, or display information on flood risk or creating a crowd-sourced mapping platform that gathers data points about real-time flooding. This could include a locally or regionally based web-based mapping product that allows local residents to better understand their flood risk.

Mapping Platform*: Yes
Select

Conducting hydrologic and hydraulic studies of floodplains. Applicants who create new maps must apply for a Letter of Map Revision or a Physical Map Revision through the Federal Emergency Management Agency (FEMA).

Hydrologic and Hydraulic Studies*: Yes Select

Funding of studies of statewide and regional significance and proposals will be considered for the studies listed below - Up to 45 points

Studies and Data Collection of Statewide and Regional Significance Scoring:

Updating precipitation data and IDF information (rain intensity, duration, frequency estimates) including such data at a sub-state or regional scale on a periodic basis. (45)

Regional relative sea level rise projections for use in determining future impacts. (45)

Vulnerability analysis either statewide or regionally to state transportation, water supply, water treatment, impounding structures, or other significant and vital infrastructure from flooding. (45)

Flash flood studies and modeling in riverine regions of the state. (45)

Statewide or regional stream gauge monitoring to include expansion of existing gauge networks. (45)

New or updated delineations of areas of recurrent flooding, stormwater flooding, and storm surge vulnerability in coastal areas that include projections for future conditions based on sea level rise, more intense rainfall events, or other relevant flood risk factors. (45)

Regional flood studies in riverine communities that may include watershed scale evaluation, updated estimates of rainfall intensity, or other information. (45)

Regional hydrologic and hydraulic studies of floodplains. (45)

Studies of potential land use strategies that could be implemented by a local government to reduce or mitigate damage from coastal or riverine flooding. (40)

Other proposals that will significantly improve protection from flooding on a statewide or regional basis (35)

Studies and Data Collection of Statewide and Regional Significance*: Flash flood studies and modeling in riverine regions of the state

Is the project area socially vulnerable? (based on ADAPT Virginia's Social Vulnerability Index Score)

Social Vulnerability Scoring:

Very High Social Vulnerability (More than 1.5)

High Social Vulnerability (1.0 to 1.5)

Moderate Social Vulnerability (0.0 to 1.0)

Low Social Vulnerability (-1.0 to 0.0)

Very Low Social Vulnerability (Less than -1.0)

Socially Vulnerable*: Low Social Vulnerability

Is the proposed project part of an effort to join or remedy the community's probation or suspension from the NFIP?

NEIP*: _____ No _____

Is the proposed project in a low-income geographic area as defined below?

"Low-income geographic area" means any locality, or community within a locality, that has a median household income that is not greater than 80 percent of the local median household income, or any area in the Commonwealth designated as a qualified opportunity zone by the U.S. Secretary of the Treasury via his delegation of authority to the Internal Revenue Service. A project of any size within a low-income geographic area will be considered.

Low-Income Geographic Area*: Yes

Projects eligible for funding may also reduce nutrient and sediment pollution to local waters and the Chesapeake Bay and assist the Commonwealth in achieving local and/or Chesapeake Bay TMDLs.

Does the proposed project include implementation of one or more best management practices with a nitrogen, phosphorus, or sediment reduction efficiency established by the Virginia Department of Environmental Quality or the Chesapeake Bay Program Partnership in support of the Chesapeake Bay TMDL Phase III Watershed Implementation Plan?

Reduction of Nutrient and Sediment Pollution*: No

Comments:

N/A

Scope of Work Supporting Information - Studies

Scope of Work Supporting Information

Is the proposed study a new study or updates on a prior study?

New or Updated Study*: New Study

Describe the relationship of the study to the local government's needs for flood prevention and protection, equity, community improvement, identification of nature-based solutions or other priorities contained in this manual

**Relationship of Study to
Priorities Contained in this
Manual*:**

This study will reflect the items listed in the manual's Commonwealth Resilience Planning Principles. It will investigate future impacts due to climate change, assist the County in determining environmentally-conscious and cost-effective paths to mitigate repetitive flooding, and incorporate input from the public. Further, the study could become a blueprint for future work within the same watershed or others elsewhere in the County where flooding issues are also present. In this sense, completing the study directly and holistically benefits the County's efforts to develop more flood-resilient communities.

Describe the qualifications of the individuals or organizations charged with conducting the study or the elements of any request for proposal that define those qualifications

Qualifications of Individuals

Conducting Study*:

The County will utilize a consulting firm previously selected under the Engineering Services for the Loudoun County Stormwater Management Program Basic Order Agreement Request for Qualifications to complete this study. The firm will be experienced with detailed modeling of hydrologic and hydraulic systems, flood mitigation/response concept planning, and the permitting and construction concerns related to carrying out a proposed flood mitigation idea. The firm will have completed modeling studies for the County in the past and directly shown its expertise in modeling, production of deliverables, quality control, and communication skills.

Describe the expected use of the study results in the context of the local resilience plan or, in the case of regional plans, how the study improves any regional approach

Expected use of Study Results*:

The study will provide technical backing for potential future projects, offering technical support to enhance flood resilience within the study area. This aligns with the County's objective of safeguarding affected communities against flooding. In a larger context, this study could serve as a blueprint for tackling flood mitigation projects in Loudoun County and elsewhere. It provides a roadmap, outlining objectives, timelines, tasks, assumptions, and other crucial details that can guide similar studies in diverse locations, laying the groundwork for more resilient communities.

If applicable, describe how the study may improve Virginia's flood protection and prevention abilities in a statewide context (type N/A if not applicable)

Statewide Improvements*:

N/A

Provide a list of repetitive and/or severe repetitive loss properties. Do not provide the addresses for the properties, but include an exact number of repetitive and/or severe repetitive loss structures within the project area

Repetitive Loss and/or Severe CID510090_Loudoun County_CFPF_RLSRLRecords.pdf

Repetitive Loss Properties*:

Describe the residential and commercial structures impacted by this project, including how they contribute to the community such as historic, economic, or social value. Provide an exact number of these structures in the project area

Residential and/or Commercial

Structures*:

The Cabin Branch watershed is in the heart of the Sterling community of Loudoun County. Sterling was first settled in the 19th century and truly sprang to life in 1962 with the development of the planned community of Sterling Park. The 2020 U.S. Census recorded a population of 30,337 people in Sterling. Sterling offers a diverse range of housing options, including condominiums, townhomes, and single-family residences. Sterling has numerous retail centers, including Dulles Town Center, as well as several outdoor plazas. Major employers in Sterling include high-tech data centers as well as well-known international businesses such as Saab, Northrop Grumman, and Verizon. Given the large size of the watershed and the mixed land use in the Sterling community, it is not possible to provide exact numbers of residential and commercial structures in the Cabin Branch watershed.

If there are critical facilities/infrastructure within the project area, describe each facility

Critical Facilities/Infrastructure*:

Numerous critical facilities/infrastructure assets exist in the Cabin Branch watershed. These include three elementary schools (Sully, Sterling, and Guilford), one middle school (Sterling), and one high school (Park View). The watershed is also home to one major power line that runs from southeast to northwest through the watershed, as well as six telecom towers. Sterling Park Fire and Sterling Park Rescue Stations are both located in the Cabin Branch watershed. Finally, State Route 28, a primary state highway and a major artery in the northern Virginia region, bisects the Cabin Branch watershed, running north to south.

Budget

Budget Summary

Grant Matching Requirement*:

LOW INCOME - Flood Prevention and Protection Studies - Fund 90%/Match 10%

Is a match waiver being requested?

Match Waiver Request

No

Note: Only low-income communities
are eligible for a match waiver

*:

**I certify that my project is in a
low-income geographic area:** Yes

Total Project Amount (Request + \$956,292.00

Match)*: **This amount should equal the sum of your request and match figures

**REQUIRED Match Percentage
Amount:** \$95,629.20

BUDGET TOTALS

Before submitting your application be sure that you meet the match requirements for your project type.

Match Percentage:

10.00%

Verify that your match percentage matches your required match percentage amount above.

Total Requested Fund Amount: \$860,662.00

Total Match Amount: \$95,630.00

TOTAL: \$956,292.00

Personnel

Description	Requested Fund Amount	Match Amount	Match Source
	No Data for Table		

Fringe Benefits

Description	Requested Fund Amount	Match Amount	Match Source
	No Data for Table		

Travel

Description	Requested Fund Amount	Match Amount	Match Source
	No Data for Table		

Equipment

Description	Requested Fund Amount	Match Amount	Match Source
	No Data for Table		

Supplies

Description	Requested Fund Amount	Match Amount	Match Source
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Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

Construction

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

Contracts

Description	Requested Fund Amount	Match Amount	Match Source
Cabin Branch Watershed Study PCSMMM 1D-2D Model	\$860,662.00	\$95,630.00	
	\$860,662.00	\$95,630.00	

Pre-Award and Startup Costs

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

Other Direct Costs

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

Supporting Documentation

Supporting Documentation

Named Attachment	Required Description	File Name	Upload Type	Size	Date
Detailed map of the project area(s) (Projects/Studies)	Cabin Branch, Loudoun County Location Map.	CID510090_Loudoun County_CFPF-1_Cabin Branch Location Map.pdf	pdf	972 KB	11/23/2025 08:25 AM
FIRMette of the project area(s) (Projects/Studies)	Cabin Branch Firmettes	CID510090_Loudoun County_CFPF-1_Firmettes.pdf	pdf	26 MB	11/23/2025 08:18 AM

Named Attachment	Required Description	File Name	Type	Size	Upload Date
Historic flood damage data and/or images (Projects/Studies)	Flooding on Church Road from Cabin Branch.	CID510090_Loudoun County_CFPF- 1_CabinBranchatChurchRoadPhoto.pdf	pdf	55 KB	11/23/2025 08:31 AM
A link to or a copy of the current floodplain ordinance	The attached document is the Loudoun County Zoning Floodplain Ordinance.	CID510090_LoudounCounty_CFPF_Zoning Ordinance_Floodplain Overlay District 1.pdf	pdf	587 KB	10/28/2025 01:15 PM
Maintenance and management plan for project					
A link to or a copy of the current hazard mitigation plan	The attached document is the Northern Virginia Hazard Management Plan. Loudoun County participates in the development and implementation of this regional hazard management plan.	CID510090_LoudounCounty_CFPF_2022- nova-hmp.pdf	pdf	11 MB	10/28/2025 01:20 PM
A link to or a copy of the current comprehensive plan	The attached document is the current Loudoun County Comprehensive Plan.	CID510090_Loudoun County_CFPF_CompPlan.pdf	pdf	37 MB	10/28/2025 01:16 PM
Social vulnerability index score(s) for the project area	Social Vulnerability Index scores range from -0.1 to -0.9 in the Cabin Branch watershed.	CID510090_Loudoun County_CFPF- 1_Social Vulnerability Map.pdf	pdf	1 MB	11/19/2025 07:03 AM

Named Attachment	Required Description	File Name	Type	Size	Upload Date
Authorization to request funding from the Fund from governing body or chief executive of the local government	Authorization from local government	Approved Cabin Branch Watershed.pdf	pdf	378 KB	12/01/2025 02:38 PM
Signed pledge agreement from each contributing organization					
Maintenance Plan					
<i>Benefit-cost analysis must be submitted with project applications over \$2,000,000. in lieu of using the FEMA benefit-cost analysis tool, applicants may submit a narrative to describe in detail the cost benefits and value. The narrative must explicitly indicate the risk reduction benefits of a flood mitigation project and compares those benefits to its cost-effectiveness.</i>					
Benefit Cost Analysis					
Other Relevant Attachments	The attached document is the Loudoun County Local Resilience Plan.	CID510090_Loudoun County_CFPF_Local Resilience Plan.pdf	pdf	1 MB	10/28/2025 01:17 PM

Letters of Support

Description	File Name	Type	Size	Upload Date
The Median Income for Census Tract 6116.02 is just 53% of the Entire Loudoun County Median Income (ACS 2023 1-Year)	CID510090_Loudoun County_CFPF-1_MedianHouseholdIncomeComparison.pdf	pdf	86 KB	11/23/2025 08:51 AM
U.S. Census Blocks in Cabin Branch watershed	CID510090_Loudoun County_CFPF-1_CabinBranchCensusBlocks.pdf	pdf	64 KB	11/23/2025 08:55 AM